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THE STATUS OF LLOYD'S BUSH-TIT AS A BIRD OF
ARIZONA.

BY H. S. SWARTH.

THE Santa Rita Bush-tit (*Psaltiriparus santaritæ*) was described by Ridgway (Proc. U. S. Nat. Mus., X, 1888, p. 697) and remained for some years in good standing in the American Ornithologists' Union Check-List, as a species occurring in, and limited to, the Santa Rita Mountains, Arizona. The principal characteristic of the supposed species, as distinguished from *P. plumbeus*, was the presence of a dusky line on the sides of the head, over the auriculars.

During several seasons collecting in southern Arizona the writer collected a fairly extensive series of bush-tits, keeping a careful lookout for *P. santaritæ*, which, however, for some time he failed to find. Finally, in the summer of 1903, specimens were taken in the Santa Rita Mountains which answered the description, but they proved to be birds in juvenal plumage. In one or two instances adults, obviously in attendance upon these young birds, were collected, and these proved to be *plumbeus*; in other cases flocks from which examples of "*santaritæ*" were secured, were carefully scrutinized without revealing the presence of any individuals with black head markings. Altogether the writer felt convinced that the supposed Santa Rita Bush-tit was in reality the immature plumage of *P. plumbeus*, and so stated in a paper on the birds of the Santa Rita Mountains (Condor, 7, 1905, p. 81).

In the meantime Mr. Oberholser had published a synopsis of the genus *Psaltiriparus* (Auk, XX, 1903, pp. 198-201), in which he made the following statement (p. 200) in regard to the disputed species. "The type of Mr. Ridgway's *Psaltiriparus santaritæ* is an immature male of *lloydi*, as a careful examination shows, and it can be easily matched by young male specimens from any part of the range of the latter."

In accordance with this idea the third (1912) edition of the A. O. U. Check-List (p. 353) gives the range of *Psaltiriparus melanotis lloydi* as including southeastern Arizona, presumably upon Oberholser's statement quoted above.

So the matter rested until recently. In the course of the preparation of a distributional list of the birds of Arizona it became desirable that the status in Arizona of these two species of bush-tits, *plumbeus* and *lloydi*, be definitely settled, and all material available was carefully scrutinized. In the course of this study additional specimens were discovered which appeared to prove conclusively the correctness of my previous assertion, that *santaritæ* was a synonym of *plumbeus* and not of *lloydi*.

The expedition which the University of California Museum of Vertebrate Zoölogy sent to the Pine Forest Mountains of northern Nevada in 1909, secured a large series of *Psaltriparus plumbeus*. Included therein are a number of birds in juvenal plumage, and a proportion of these have the head marking of "*P. santaritæ*." As there was no question of *P. m. lloydi* occurring in this region, this was a conclusive demonstration that the young of *plumbeus* frequently have more or less black on the head. The evident conclusion to be drawn from this was that "*Psaltriparus santaritæ*," occurring in a region where *plumbeus* is abundant, should be regarded as the young of that species and not of *lloydi*, unless adults of the latter species also were taken in the same place. As far as I knew there were no Arizona records of *lloydi* other than of the birds first described as "*santaritæ*," but the possibility that adult specimens of *lloydi* had been taken within the state, and that their capture was authority for the extension of range as given in the Check-List caused me to make inquiry in this particular.

Correspondence with Professor W. W. Cooke, of the Biological Survey, elicited the fact that no such adults had been taken, and that the inclusion of southeastern Arizona in the range of *lloydi* was based entirely on the belief that "*santaritæ*" was the young of that species. After examining the young birds which I sent him, Professor Cooke agreed with my conclusion that there was nothing to justify the further retention of *Psaltriparus m. lloydi* in the list of Arizona birds. He remarked further that there seemed to be no way of distinguishing with certainty between the young of *lloydi* and those examples of young *plumbeus* which possess the black head markings.

Following are brief descriptions of individuals of the Lead-colored Bush-tit (*Psaltriparus plumbeus*) in juvenal plumage. As

young and adult are practically alike in general body color these descriptions are restricted to the head with its distinctive markings.

No. 8616 (Mus. Vert. Zool.); juvenal, sex undetermined; Pine Forest Mountains, Nevada; June 14, 1909. Head with an extensive "mask" of black. Lores and space about eye (5 mm. below, 2 mm. above, 5 mm. behind) black, sharply defined against gray of rest of head.

No. 8614 (Mus. Vert. Zool.); juvenal male; Pine Forest Mountains, Nevada; June 14, 1909. Faintly defined black collar at back of neck, produced by black tips to the feathers.

No. 8625 (Mus. Vert. Zool.); juvenal male; Pine Forest Mountains, Nevada; June 27, 1909. A black line through the eye, widening posteriorly so as to form a triangle on side of head; continued over back of neck as a narrow black line.

No. 8611 (Mus. Vert. Zool.); juvenal, sex undetermined; Pine Forest Mountains, Nevada; June 2, 1909. A narrow line of dull black beginning behind auriculars and extending over back of neck.

No. 8618 (Mus. Vert. Zool.); juvenal male; Pine Forest Mountains, Nevada; June 11, 1909. Similar to No. 8611, but not so distinctly marked.

No. 4099 (Coll. H. S. S.); juvenal male; Santa Rita Mountains, Arizona; June 25, 1903. Black line extending backward from eye over side of neck.

No. 4098 (Coll. H. S. S.); juvenal male; Santa Rita Mountains, Arizona; June 25, 1903. A triangular shaped black mark extending backward from eye on side of head.